

case of *A. c. taruensis* van Someren and *A. c. sylviella*, both of which differ markedly from each other, but seem, nevertheless, closely related and occur very near to one another geographically, though apparently they differ ecologically. Thus *A. c. taruensis* ranges southwards from about the Tana River in the coastal savannah-forest mosaic, but in Tanganyika penetrates inland up some of the major river valleys such as the Pangani and Ruaha where it comes into close geographical proximity to the very different looking *A. c. sylviella*, which is largely, if not wholly, a highland form and in the south of its range apparently restricted to *Brachystegia* woodland. Dr. D. W. Snow *MS* revision and *in litt.*, gives *A. sylviella* specific rank on the basis of its distinctive colour and the fact that it approaches *A. c. taruensis* so closely, in eastern Tanganyika. But it would seem best at present to retain *A. sylviella* as a race of the *caroli* group, as it occupies rather a central position among several other rather clear-cut races. The distinctions here, as elsewhere, merely tend to accentuate the differences between two forms that have become separated ecologically in precisely the same way that *A. c. rankinei* appears to have become isolated from the surrounding populations.

It is perhaps worth mentioning that two recently collected specimens of *A. caroli* from near the top of the Zambesi Escarpment between 2,500–3,000 ft. in the Sipolilo District of Mashonaland, are still quite typical of the olive toned populations of *A. c. caroli*. These birds comprise a ♂♀ from the Umsengedzi River Gorge at approximately 16° 20' S., 31° 02' E. They further agree with another recent ♂ from Zana Farm at the northern end of the Umvukwe Range of hills at 16° 37' S., 31° 04' E. at an altitude of 4,000 ft. Thus in this sector, the ranges of *A. c. caroli* and *A. c. rankinei* are shown to approach each other to within a distance of some 70 miles and no doubt to the westward along the plateau on the escarpment, the gap will eventually be still further narrowed.

Geographical variation in the southern African populations of the Dusky Flycatcher *Muscicapa adusta* (Boie)

by WALTER J. LAWSON

Received 7th May, 1962

The Dusky Flycatcher *Muscicapa adusta* is restricted in southern Africa to the moister southern and eastern regions, extending from the southern Cape Province, Natal, Zululand, Swaziland and the eastern and north-eastern Transvaal, Moçambique, and the eastern regions of Southern Rhodesia to Northern Rhodesia and Angola northwards.

Within southern African subcontinental limits two races are currently recognised in the standard literature, these being *M. a. adusta* (Boie): Knysna, Cape Province, with a stated range of the southern part of the Cape Province to Natal and north to the eastern Transvaal, southern

Southern Rhodesia and southern Moçambique, and *M. a. subadusta* (Shelley): Nyika Plateau, Nyasaland, which ranges from Southern Rhodesia, Northern Rhodesia west to the Katanga district of the Congo, Angola and Nyasaland.

As a result of a reassessment of the populations of this small flycatcher in southern Africa conducted at the Durban Museum, it became apparent that a further subspecific taxon requires to be recognised in this area. Topotypical nominate *M. adusta* has heavy brown streaks on the lower throat and breast which have a buffy-olive suffusion, the flanks also being buffy, and on the remainder of the underside the white is not a clear white, but has a tinge of buff. The upper-parts are a deep brown. This form ranges from the southern Cape Province to the eastern Cape Province, in which areas it breeds, and in winter it moves north to Natal, Zululand, southern Moçambique, Swaziland, and to the extreme south of Southern Rhodesia (Sabi/Lundi junction).

The resident populations of Natal, Zululand, the lowlands of Swaziland and eastern Transvaal differ from the nominate race of the Cape, as now defined, in having the streaks of the lower throat and breast more clearly defined and in lacking the buffy-olive suffusion there and on the flanks. The streaks of the chest are grey, not brown, and the white of the abdomen is clear with no tinge of buff. The upper parts are paler than in the nominate race and have an olive tinge to the grey. It also averages smaller in size than *M. a. adusta*. For the populations of this flycatcher resident in Natal, Zululand to the north-eastern Transvaal, the name *Muscicapa fuscula* Sundevall, 1850, is available. *M. fuscula* was based on specimens collected by Wahlberg in "Caffraria", which in this instance must refer to Natal as this species does not occur in the western Transvaal, Sundevall's "Caffraria superiore". I therefore fix the type-locality of *M. a. fuscula* as "Durban, Natal", in which general area Wahlberg operated extensively in the early 1840's

M. a. subadusta is paler and greyer on the upper-parts than either of the preceding forms, with the streaking on the chest somewhat indistinct and grey in coloration. It is considerably smaller than *M. a. adusta* and *M. a. fuscula*.

The Dusky Flycatcher does not appear to be a breeding resident in southern Moçambique, only occurring there in winter, the wintering population in southern Moçambique being drawn from the two southern taxa. Dr. Winterbottom informs me that Mrs. M. K. Rowan of the Percy FitzPatrick Institute of African Ornithology, Rondebosch, has for some years suspected that the southern Cape populations of the Dusky Flycatcher leave that area in winter. This observation is largely confirmed by the fact that the darker coloured birds of the southern and eastern Cape are only to be found north of the limits defined here as their breeding range in winter. A very similar situation occurs in the Paradise Flycatcher *Terpsiphone viridis granti*, in which species the southern and eastern Cape populations migrate north in winter, the populations from Natal and Zululand not moving to the same extent.

The subspecies of the Dusky Flycatcher occurring in southern Africa are therefore:

Muscicapa adusta adusta (Boie)

Butalis adusta Boie, *Isis*, 1828, col. 318: Knysna, Cape Province.

Characterized by having heavy buffy-olive streaks on the lower throat and breast, the white of the abdomen tinged with buff, and not a clear white, the upper parts a deep brown, and in being larger in size than either of the following taxa.

Measurements: 10 ♂♂ wing 66.5–72.0 (68.9), tail 53.0–58.0 (55.1), culmen 14.0–19.0 (15.2); 10 ♀♀ wing 65.0–68.0 (66.5), tail 50.5–55.5 (52.7), culmen 13.5–15.5 (14.5) mm.

Material: 52 [southern Cape 22, eastern Cape Province 15 (wintering), Natal 6 (wintering), eastern Transvaal 5 (wintering), Swaziland 1 (wintering), southern Moçambique 2 (wintering), and southern Southern Rhodesia (Sabi/Lundi junction) 1 (wintering)].

Range: From the south-western Cape Province, eastwards through the southern Cape Province to just north of Port Elizabeth. In winter, however, this form leaves its breeding grounds and migrates north and is then to be found in the eastern Cape Province, Natal, Zululand, Swaziland, eastern Transvaal, extreme southern Southern Rhodesia and southern Moçambique.

Muscicapa adusta fuscula Sundevall

Muscicapa fuscula Sundevall, *Oefv. Ak. Förhandl.*, 1850, 105: Durban, Natal (see discussion above).

Differs from the nominate race in having the streaks on the lower throat and breast grey, not buffy-olive, and more clearly defined, underparts a much clearer white, not tinged with buff, the breast and flanks without a buffy suffusion. On the upper parts lighter and greyer than in the nominate race, often tinged with olive. Averaging smaller in size.

Measurements: 10 ♂♂ wing 67.0–70.0 (68.1), tail 52.0–56.0 (53.6), culmen 13.5–15.0 (14.2); 10 ♀♀ wing 65.0–68.0 (66.6), tail 51.0–54.0 (52.8), culmen 14.0–14.5 (14.1) mm.

Material: 60 [eastern Cape Province 27, Natal 21, Swaziland 1, eastern Transvaal 9, Moçambique 2 (wintering)].

Range: The eastern Cape Province north of the range of *M. a. adusta*, through Natal, Zululand, the eastern lowlands of Swaziland, and the eastern Transvaal. In southern Moçambique in winter only.

Muscicapa adusta subadusta (Shelley)

Alseonax subadusta Shelley, *Ibis*, 1897, p. 452: Nyika Plateau, Nyasaland.

Differs from either of the foregoing races by having the grey streaks on the lower throat and breast indistinct and the upper parts a lighter grey than in either of the two preceding races with no olive or buffy suffusion. Also smaller in size than the two southern races, especially as regards the length of the tail and culmen.

Measurements: 10♂♂ wing 66.0–70.0 (67.3), tail 48.0–51.0 (49.3), culmen 12.5–14.0 (13.3); 10♀♀ wing 63.0–67.0 (64.8), tail 45.0–51.0 (47.7), culmen 13.0–14.0 (13.5) mm.

Material: 56 (Southern Rhodesia 25, Northern Rhodesia 20, Nyasaland 5, northern Moçambique 5, Angola 1).

Range: Southern Rhodesia, Northern Rhodesia, Angola, south-eastern Congo, Nyasaland and northern Moçambique.

For the loan of additional material I am indebted to the Directors of the following Museums: South African Museum, Cape Town (through Dr. J. M. Winterbottom), Transvaal Museum, Pretoria (through Mr. O. P. M. Prozesky), East London Museum and the National Museum of Southern Rhodesia, Bulawayo (through Mr. M. P. Stuart Irwin). I am also indebted to Dr. J. M. Winterbottom for kindly furnishing me with information regarding Sundevall's *Muscicapa fuscula*, and to Mr. P. A. Clancey, Director of the Durban Museum, for much valuable assistance during the course of this study.

The races of the Flaming Sunbird (*Aethopyga flagrans*)

by KENNETH C. PARKES

Received 30th May, 1962

The Flaming Sunbird (*Aethopyga flagrans*) is an endemic Philippine species, one of the most attractive members of a generally highly coloured genus of sunbirds. I have examined 70 specimens of this species, representing the combined material in Carnegie Museum, American Museum of Natural History, U.S. National Museum, and Peabody Museum of Yale University. I am indebted to the authorities of the latter three institutions for permission to use their specimens.

Study of this series shows that a stepped cline of increasing redness exists within the Philippines from north to south. Two subspecies are currently recognized: “*A. f. flagrans* (Luzon, Catanduanes), mantle deep olive yellow tinged with orange on the upper back and shoulders; *A. f. guimarasensis* [error for *guimarasensis*] (Negros, Panay, Guimaras), mantle blood red.” (Delacour and Mayr, *Birds of the Philippines*, 1946, p. 231). The geographic variation in this species warrants recognition of four rather than two races. In most subdivisions of clines for nomenclatorial purposes the end-points receive the earliest names, and later authors may seek to apply names to additional transitional stages. In the case of *Aethopyga flagrans*, however, the terminal populations are the nameless ones.

Rand (1951, *Fieldiana: Zoology*, 31: 588) considered 1 Guimaras, 2 Panay and 3 Negros males to “agree fairly well among themselves,”